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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,593	01/16/2004	Ryuji Nishikawa	492322015800	3268
25227	7590	08/31/2006	EXAMINER	
MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102			RIELLEY, ELIZABETH A	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,593

Applicant(s)

NISHIKAWA ET AL.

Examiner

Elizabeth A. Rielley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Amendment filed 6/22/06 has been entered and considered by the Examiner. Currently, claims 1 and 2 are pending in the instant application.

Information Disclosure Statement

The information disclosure statement filed 2/6/06 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered

Applicant argues that no translation is needed for the Korean Office action dated November 18, 2005, since all references cited by the action are additionally listed on PTO form 1449. The Examiner respectfully disagrees. The Korean Office action gives more detail than simply listing the references used. The office action also explains *why* the references are relevant to the current application. This information is essential in considering the Korean office action as a reference in the current application. Therefore, the Korean Office action, the fifth reference on form 1449 dated 2/6/06 will not be considered until the translation has been submitted to the PTO.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki (US 20010040645).

Yamazaki ('645) teaches an electroluminescent display device comprising: a red pixel (301; figure 2; paragraph 60), a green pixel (302) and a blue pixel (303); a red filter layer, a green filter layer and a blue filter layer that are provided for the red, green and blue pixels, respectively (304-308; figure 2; paragraph 60); an electroluminescent element having (51; figure 1; paragraph 57) a white electroluminescent emissive layer (paragraphs 10; 124-125) and formed above each of the red, green and blue filter layers (see figures 1 and 2); and a thin film transistor driving the electroluminescent element and provided for each of the red, green and blue pixels (202; figure 1; paragraph 57). Yamazaki is silent regarding the white EL emissive layer is disposed continuously over the red, green, and blue pixels. However, at the time the invention was made, it would have been an obvious matter of design engineering to a person of ordinary skill in the art to provide a continuous white electroluminescent emissive layer since Applicant's claimed continuous layer does not solve any of the stated problems or yield any unexpected result that is not within the scope of the teaching applied. Furthermore, one skilled in the art would reasonable expect applicant's invention to perform equally well with either the patterned white

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electroluminescent emissive layer disclosed by Yamazaki or the claimed continuous white electroluminescent emissive layer since both layers perform the same function of providing an electroluminescent layer between an anode and a cathode, such when an electric current is made to pass through the EL material, carriers are made to recombine, and light is emitted. Accordingly, it would have been an obvious matter of design engineering to modify the device of Yamazaki to obtain the invention as specified in claim 1 (please see arguments below).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki (US 20010040645) in view of Osawa et al (US 5892492).

Yamazaki ('645) teaches an electroluminescent display device comprising: a red pixel (301; figure 2; paragraph 60), a green pixel (302) and a blue pixel (303); a red filter layer, a green filter layer and a blue filter layer that are provided for the red, green and blue pixels, respectively (304-308; figure 2; paragraph 60); an electroluminescent element having (51; figure 1; paragraph 57) a white electroluminescent emissive layer (paragraphs 10; 124-125) and formed above each of the red, green and blue filter layers (see figures 1 and 2); and a thin film transistor driving the electroluminescent element and provided for each of the red, green and blue pixels (202; figure 1; paragraph 57). Yamazaki is silent regarding the white EL emissive layer is disposed continuously over the red, green, and blue pixels and the limitation of the red filter layer is 50% or lower at 584 nm, a light transmittance of the green filter layer is 50% or lower outside the wavelength range of 482 nm and 588 nm, and a light transmittance of the blue filter layer is 50% or lower outside the wavelength range of 407 nm and 516 nm. In regard to the limitation of the white EL emissive layer is disposed continuously over the red, green, and blue pixels, at the time the invention was made, it would have been an obvious matter of design engineering to a person of ordinary skill in the art to provide a continuous white electroluminescent emissive layer since Applicant's claimed continuous layer does not solve any of the stated problems or yield any unexpected

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result that is not within the scope of the teaching applied. Furthermore, one skilled in the art would reasonable expect applicant's invention to perform equally well with either the patterned white electroluminescent emissive layer disclosed by Yamazaki or the claimed continuous white electroluminescent emissive layer since both layers perform the same function of providing an electroluminescent layer between an anode and a cathode, such when an electric current is made to pass through the EL material, carriers are made to recombine, and light is emitted. Accordingly, it would have been an obvious matter of design engineering to modify the device of Yamazaki to obtain the invention as specified in claim 2. In regard to the limitation of the red filter layer is 50% or lower at 584 nm, a light transmittance of the green filter layer is 50% or lower outside the wavelength range of 482 nm and 588 nm, and a light transmittance of the blue filter layer is 50% or lower outside the wavelength range of 407 nm and 516 nm, Osawa et al ('492) teach the use of red, green, and blue color filters for improving color purity and expanding color reproductively of emitted light (column 2 lines 6-14), particularly Osawa exemplifies light transmittance of the red filter layer is 50% or lower at 584 nm (figure 4), a light transmittance of the green filter layer is 50% or lower at a point outside the wavelength range of 482 nm and 588 nm (figure 9), and a light transmittance of the blue filter layer is 50% or lower at a point outside the wavelength range of 407 nm and 516 nm (figure 10). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine EL device of Yamazaki with the color filters of Nakazawa in order to improve the color purity and expand color reproductively of the emitted light.

Response to Arguments

Applicant's arguments filed 6/22/06 have been fully considered but they are not persuasive.

In regard to Applicant's argument that the prior art of record fails to teach the claimed invention, since the prior art teaches the white EL layer located also on the second planarization insulation film that makes it unnecessary to use a vapor deposition mask for forming the EL layers, the Examiner respectfully disagrees. The Examiner notes that the recitation of a vapor deposition mask to form the EL layers is considered a product by process limitation. It has been recognized that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process," *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See also MPEP 2113. Therefore, Accordingly, Yamazaki's teaching of a white EL layer is considered to meet the claimed recitation.

In regard to Applicant's argument that the prior art of record fails to teach the claimed invention, since the prior art fails teach an electroluminescent emissive layer disposed continuously over the red, green, and blue pixels as a matter of design choice, the Examiner respectfully disagrees. It is very common in the art to manufacture an EL layer continuously within an EL device. Roitman et al (US patent 6552488) specifically teaches the use of a continuous white EL layer (column 4 lines 2-5). One skilled in the art would reasonable expect applicant's invention to perform equally well with either the patterned white electroluminescent emissive layer disclosed by Yamazaki or the claimed continuous white electroluminescent emissive layer since both layers perform the same function of providing an electroluminescent layer between an anode and a cathode, such when an electric current is made to pass through the EL material, carriers are made to recombine, and light is emitted. Accordingly, it would have been an obvious matter of design engineering to modify the device of Yamazaki to manufacture the white EL layer in one continuous layer as a matter of design engineering.

In regard to Applicant's argument that the prior art of record fails to light transmittance of the red filter layer is 50% or lower at 584 nm, a light transmittance of the green filter layer is 50% or lower at a point outside the wavelength range of 482 nm and 588 nm, and a light transmittance of the blue filter layer is 50% or lower at a point outside the wavelength range of 407 nm and 516 nm, the Examiner respectfully disagrees. Osawa teaches a light transmittance of the red filter layer is 50% or lower at 584 nm (figure 4), a light transmittance of the green filter layer is 50% or lower at a point outside the wavelength range of 482 nm and 588 nm (figure 9), and a light transmittance of the blue filter layer is 50% or lower at a point outside the wavelength range of 407 nm and 516 nm (figure 10) in order to improve color purity and expand color reproductively of emitted light (column 2 lines 6-14).

Therefore, the prior art of record teaches all the limitations set forth, as described in the claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Rielley whose telephone number is 571-272-2117. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Elizabeth Rielley

Examiner
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MARICELI SANTIAGO
PRIMARY EXAMINER